

(19)



Europäisches Patentamt

European Patent Office

Office européen des brevets



(11)

EP 1 069 779 A1

(12)

## EUROPEAN PATENT APPLICATION

published in accordance with Art. 158(3) EPC

(43) Date of publication:

17.01.2001 Bulletin 2001/03

(51) Int. Cl.<sup>7</sup>: H04N 7/50

(21) Application number: 00902884.6

(86) International application number:  
PCT/JP00/00720

(22) Date of filing: 09.02.2000

(87) International publication number:  
WO 00/48402 (17.08.2000 Gazette 2000/33)

(84) Designated Contracting States:  
DE ES FR GB NL

(72) Inventor:  
KITAMURA, Takuya  
Sony Corporation  
Tokyo 141-0001 (JP)

(30) Priority: 09.02.1999 JP 3194499

(74) Representative:  
Robinson, Nigel Alexander Julian et al  
D. Young & Co.,  
21 New Fetter Lane  
London EC4A 1DA (GB)

(71) Applicant: Sony Corporation  
Tokyo 141-0001 (JP)

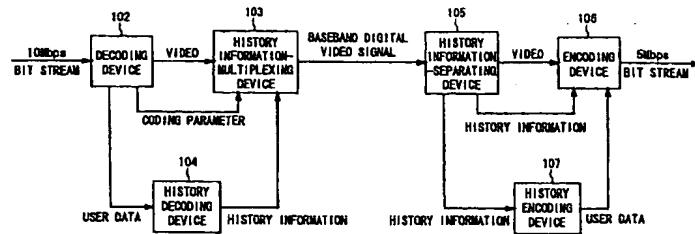
### (54) CODING SYSTEM AND ITS METHOD, CODING DEVICE AND ITS METHOD, DECODING DEVICE AND ITS METHOD, RECORDING DEVICE AND ITS METHOD, AND REPRODUCING DEVICE AND ITS METHOD

(57) The present invention relates to a transcoder for executing a re-coding process on an encoded stream generated based on an MPEG standard in order to generate a re-coded stream having a different GOP (Group of Pictures) structure or bit rate.

Specifically, a decoding device of a transcoder 106 decodes a source encoded stream to generate decoded video data and extracts past coding parameters superposed in the encoded stream as history\_stream(). In this case, the decoding device extracts the past coding parameters based on information superposed in the encoded stream as re\_coding\_stream\_info().

An encoding device receives the decoded video data and the past coding parameters and uses the past

coding parameters to carry out an encoding process in a manner such that this process will not degrade image quality, thereby generating a re-coded stream. Further, the encoding device selects one of the past coding parameters which are optimal for an application connectively following the encoding device and describes only the selected past coding parameters in the encoded stream as history\_stream(). The encoding device superposes, as re\_coding\_stream\_info(), information indicating the selected past coding parameters so that the following application can properly extract the coding parameters for the history\_stream() from the re-coded stream.



TRANSCODER 101